

# **POLICY ANALYSIS**

# UK PRODUCTIVITY DURING THE BLAIR ERA

- Productivity is a key indicator of economic health and increasing productivity has been a key objective of the Labour government since 1997. UK labour productivity (GDP per hour) has traditionally been lower than other major industrialised countries.
- In recent years, the gap in labour productivity with respect to France and Germany has gradually narrowed. Although these improvements are evident since 1991, prior to the Blair government, we would normally have expected productivity growth to have slowed by this point in the business cycle.
- Despite these recent improvements, output per hour worked in the UK is still about 13% lower than Germany's, 18% below the US level and 20% below France.
- Low UK productivity is partly due to a deficit of innovation and skills. Recent evidence also suggests that part of the gap might be driven by weaknesses in management.
- UK productivity benefits from a high degree of competition and openness to trade and foreign investment.
- Since 1997 total GDP growth has been driven mainly by increases in employment and capital (especially information technology) rather than increases in overall efficiency.







### Introduction

Output per hour worked in the UK is about 13% lower than Germany's, 18% below the US level and 20% below France. This means that if we could reach French productivity levels, we could award ourselves 20% higher wages or take a day off and still earn the same. Or we could spend the extra resources on schools and hospitals, greater benefits for the needy or lower taxes.

Raising UK productivity has been one of the main policy targets pursued by the Chancellor over the last ten years. There have been improvements in labour productivity both in terms of output per worker and output per hour worked, but a large gap remains. Overall growth of gross domestic product (GDP) growth has been mainly driven by increases in total employment and capital rather than large growths in efficiency (total factor productivity - TFP). This analysis presents some recent productivity data and discusses the possible sources of the UK's productivity gap.

## Recent trends in UK productivity

Productivity is the main determinant of national living standards – it quantifies how an economy uses the resources it has available, by relating the quantity of inputs to output. As the adage goes: productivity isn't everything, but in the long run it's almost everything.

The UK's productivity record has been poor in the post-war years. Labour productivity – output per hour worked – has been lower than that in many industrialised countries, and the gap grew wider after 1950. Since the beginning of the 1990s, however, the UK economy has been narrowing the gap with France and Germany, and stabilising the differences with the United States (see Figure 1).

The positive productivity trend can be dated to at least the early 1990s so the Labour government cannot take full credit. But this long into the economic cycle with sustained employment growth (15 years of quarter-on-quarter GDP growth), we would have normally expected some slowdown in measured productivity. Even keeping pace with the United States is an achievement given the strong productivity acceleration experienced by the US economy since 1995.

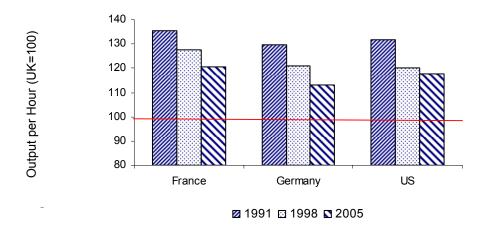


Figure 1: Labour productivity comparisons (output per hour) in 1991, 1998 and 2005 (UK=100) Source: Office for National Statistics, 2006

Higher labour productivity does not necessarily imply an increase in overall efficiency. Higher labour productivity can be achieved either by increasing the amount of inputs used in production such as capital (extra computers, for example); or by combining these inputs more efficiently – this is called total factor productivity or TFP in economists' jargon.

Figure 2 suggests that most of the recent expansion of the UK economy has been driven by increases in inputs rather than by substantial efficiency improvements. TFP growth accounts for only 5% of the UK's GDP growth between 1997 and 2004. Most of the UK expansion is driven by employment growth and by a substantial increase in the use of capital (especially information technology - IT).

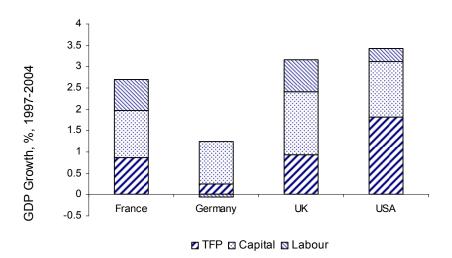


Figure 2. Contributions to GDP Growth (%) between 1997 and 2004 (market economy) Source: EUKLEMS, March 2007. TFP = total factor productivity.

So despite some recent improvements, the UK is still facing a major productivity gap with respect to other industrialised countries. We next discuss some explanations for the persistence of the gap.

## Behind the TFP gap

Innovation is the key to productivity growth and this is fostered by, among other things research and development (R&D) and skills. The UK shows some structural deficits in both areas. For example, there has been an almost continuous decline in R&D as a proportion of national income dating back to the early 1980s. In 2004, the UK spent just 1.1% of GDP on business R&D activities (BERD) compared with an average of 1.7% for France, Germany and the United States (see Figure 3), and a UK level of 1.81% in 1981. This weakness is also seen when looking at measures of patents per head, where the UK now lags behind most major OECD countries.

<sup>&</sup>lt;sup>1</sup> See, for example, Baily and Kirkegaard (2004).

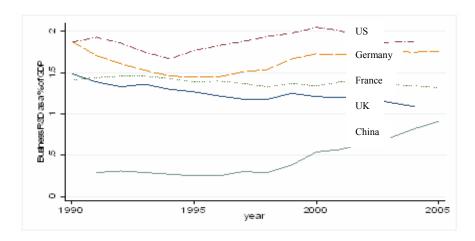


Figure 3: Business R&D spending as a proportion of GDP

Source: BERD, OECD (2005)

The government has sought to address this by improving tax credits for R&D, especially for smaller firms. These are now generous by international standards: estimated to have cost £580m in 2005, they are set to rise by another £150m by 2009. Why is there not more of an impact on the aggregate R&D figures? This is perhaps unsurprising because although there is substantial academic evidence that fiscal incentives increase R&D (and therefore productivity); it takes a very long time.

Low R&D activity is not necessarily alone a cause of slow productivity growth. The UK can access newly discovered technologies from abroad, without the need to produce them locally.<sup>2</sup> A number of studies suggest that the roots of the productivity problem might lie in the inability of UK firms to adopt and deploy innovations efficiently.

This inability may be linked to some crucial skills deficits – identified in a recent report commissioned by the government (Leitch, 2006). According to the report, 'the UK's skills base remains mediocre by international standards'. Seven million adults lack functional numeracy while five million lack functional literacy.

Moreover, there seems to be an over-representation of low skilled people vis-à-vis other developed countries. Recent OECD figures suggest that the proportion of low-skilled people in the UK is three times higher than in the United States, and almost double the proportions in Germany and Japan. This is reflected in a significantly lower proportion of intermediate skills.

Since skills are among the most important factors behind the adoption of product and process innovations, this deficit is likely to bear important consequences in terms of productivity. In the long term, education has to be the solution here and although there have been improvements, major problems remain.<sup>3</sup>

Recent evidence suggests that specific skills – related to the quality of management practices - are likely to play a role in explaining the UK's productivity gap. For example, Bloom and Van Reenen (2007) find that UK firms are significantly worse managed then French, German and US firms, even

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<sup>&</sup>lt;sup>2</sup> Although higher R&D has been shown to help firms adopt foreign innovations more easily. The importance of home R&D for absorbing foreign knowledge is demonstrated by Griffith, Redding and Van Reenen (2004) and the importance of UK firms' US-based R&D labs is demonstrated by Griffith, Harrison and Van Reenen (2006).

<sup>3</sup> See CEP Policy Analysis on education (http://cep.lse.ac.uk/briefings/pa\_education.pdf).

when differences in industry and firm size are taken into account. They link this to the preponderance of family firms – an ownership structure that is encouraged by the UK's inheritance tax system.<sup>4</sup>

Beyond generic efficiency losses, managerial deficits are also likely to dampen the productivity impact of IT, which usually requires significant organisational changes to achieve its potential.<sup>5</sup> Poor management practices or organisational inflexibility might explain why the substantial increase in computer use between 1997 and 2004 has, as yet, failed to translate into faster improvements in productivity.6

In line with this hypothesis, Bloom, Sadun and Van Reenen (2007) find that US multinationals operating in the UK have much higher productivity than other multinationals in the UK and that this is explained by US companies' better use of IT. Furthermore, they find that establishments that are taken over by US multinationals increase the productivity of their IT, whereas establishments taken over by non-US multinationals do not. They argue that these patterns are consistent with the idea that US firms are organised in a way that allows them to use new technologies more efficiently than other UK firms and non-US multinationals.

The UK fares much better in terms of product market competition, which is another key factor in improving adoption of new ideas. Here the UK does appear internationally strong and Labour has strengthened competition policy through the Enterprise Act 2002. Price-fixers, for example, now face prison terms and the UK competition regime is among the toughest in the world. Still, the level of competition is about more than competition law alone - regulation, trade openness and barriers to entry are arguably more important.

For example, some studies have suggested that part of the productivity gap could be attributed to specific regulations characterising the UK retail sector. Productivity growth in UK retail between 1995 and 2004 was considerably slower than in the United States. Some attribute the US surge in TFP growth to the introduction of large retail formats ('big boxes'), which are more efficient than small stores (for example McKinsey, 1998). According to this interpretation, lower retail productivity growth in the UK could be linked to increasingly severe planning restrictions against large stores.

### Conclusion

Despite the steady improvement in UK productivity over the past decade, there is still a major productivity challenge. First, UK labour productivity is still lower than in France, Germany and the United States. Second, most of the recent GDP growth seems to have been driven by the growth of employment and capital rather than by true efficiency (TFP) improvements.

Recent evidence suggests that the factors behind the UK productivity gap include deficits in innovation, skills and management practices, as well as regulatory constraints in the retail sector. Tackling these problems together is likely to remain a challenge.

#### For further information

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<sup>&</sup>lt;sup>4</sup> See the proposals for reform in http://cep.lse.ac.uk/briefings/pa inherited family firms.pdf.

<sup>&</sup>lt;sup>5</sup> Bresnahan, Brynjolffson and Hitt (2002).

<sup>&</sup>lt;sup>6</sup> In the UK, the increase in IT capital per hour worked was 15% per year compared with about 12% per year in France, Germany and the United States.

### References

Baily, M. and Funk Kirkegaard, J. (2004), *Transforming the European Economy*, Washington: Institute for International Economics.

Bloom, N., Sadun, R. and Van Reenen, J. (2007), 'Americans Do I.T. Better: US Multinationals and the Productivity Miracle', CEP Discussion Paper No: 788 (<a href="http://cep.lse.ac.uk/pubs/download/dp0788.pdf">http://cep.lse.ac.uk/pubs/download/dp0788.pdf</a>)

Bloom, N. and Van Reenen, J. (2007), 'Measuring and Explaining Management Practices Across Firms and Countries', <u>Quarterly Journal of Economics</u> (forthcoming).

Bresnahan, T., Brynjolfsson, E. and Hitt, L. (2002), 'Information Technology, Workplace Organization and the Demand for Skilled Labor: Firm-level Evidence', <u>Quarterly Journal of Economics</u> 117(1): 339-76.

EU KLEMS Database, March 2007, http://www.euklems.net

Griffith, R., Harrison, R. and Van Reenen, J. (2006), 'How Special is the Special Relationship: Using the Impact of US R&D Spillovers on British Firms as a Test of Technology Sourcing', <u>American Economic Review</u> 96(5) 1859-75.

Griffith, R., Redding, S. and Van Reenen, J. (2004), 'Mapping the Two Faces of R&D: Productivity Growth in a Panel of OECD Industries', <u>Review of Economics and Statistics</u>, 86(4): 883-95.

Leitch Review (2006), *Prosperity for All in the Global Economy - World Class Skills* (http://www.hm-treasury.gov.uk/media/523/43/leitch\_finalreport051206.pdf).

McKinsey Global Institute (1998), *Driving Productivity in the UK Economy*, (http://www.mckinsey.com/mgi/reports/pdfs/ukprod/Food\_retail.pdf).